#### APPENDIX A: FOREIGN R&D FACILITIES IN THE UNITED STATES, BY INDUSTRY

Company	Location of Facility	R&D Activities

Computers	&	Peri	phera	ls
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Computers & Peripherals			
Asahi Optical	Pentax Technology, Broomfield, CO	Scanners, laser printers (1985)	
Canon Canon	Canon Information System, Palo Alto, CA Canon Research Center, Palo Alto, CA	Research in computers (1990) Personal imaging computer systems (1990)	
Casio Computer	San Jose, CA	Personal digital assistants (1994)	
Epson	Epson Research Center, Advanced System Development, Santa Clara, CA	Personal computers, RISC based (1988)	
Epson	Imaging Systems Group, Sunnyvale, CA	Printers, imaging products (1987)	
Fujitsu	Intellistor Inc., Longmont, CO	Disk storage devices (1987)	
Hitachi	Waltham, MA	Workstation and Unix development (1989)	
Hitachi-Koki/ Nissea-Sanyo	Dataproducts, Woodland Hills, CA	Computer printers, printer ink	
Kobe Steel	Applied Electronics Center, Stanford Research Park, Palo Alto, CA	Thin-film data recording media and substrate materials for hard disks (1990)	
Konica	Konica Technology, Sunnyvale, CA	Data storage, printers, software (1987)	
Matsushita	Panasonic Technology, Palo Alto, CA	Computer document processing systems	
Mitsubishi Mitsubishi	Horizon Research, Waltham, MA Mitsub. Elec. Res. Lab., Cambridge, MA	Data processing (1985) Super-parallel computers (1991)	
Nakamichi	Mountain View, CA	Disk drives (1987)	
NEC	NEC Technologies Systems Lab, Boxborough, MA	Workstations, laptops	
Oki Electric	Advanced Technology Center, San Jose, CA	Laser printers, fax (1990)	
Rohm	Rohm Research Corp., Boulder, CO	Printer heads (1990)	
Sony Sony Sony	Display Systems Engineering, San Diego, CA Data Storage Laboratory, Boulder, CO Sony Microsystems, San Jose, CA	Next generation display systems, controllers Disk drive controller, storage sub-systems (1989) Workstations	
Toshiba	Toshiba Am. Info. Systems, San Jose, CA	Laptop, personal computers	
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Northern Telecom (CAN)	Formerly Computer Consoles, Rochester, NY	Computer systems for offices & communications	

Company	Location of Facility	R&D Activities
AEG (GER)	Modular Computer Sys., Fort Lauderdale, FL	Computers, computer systems and services
Siemens (GER)	Nixdorf Computer Engineering Corp.	Computers, networking, data storage, imaging
Siemens (GER) Siemens (GER)	Burlington, MA Siemens Nixdorf R&D, Cambridge, MA International Computer Science Institute Berkeley, CA	Computer hardware, software Computers (1990)
Daewoo (KO)	Santa Clara, CA	Computer research (1988)
Hyundai Electronics (KO)	Maxtor, San Jose, CA Maxtor, Longmont, CO	Computer disk and tape drives (1995) Computer hard disk drives, personal computers (1995)
Samho (KO)	California	Computer research (1989)
Samsung (KO) Samsung (KO) Samsung (KO)	U.S. PC R&D Center, San Jose, CA Boston, MA AST Research, Irvine, CA	Next generation PCs (1990) Computer research center (1988) Personal computers, peripherals (1995)
Olivetti (IT)	Blacksburg, VA	Personal computers, ATM
Memorex Telex (NE)	Tulsa, OK	Computer peripheral equipment
OCE (NE)	Sunnyvale, CA	Computer graphics plotter output printers
Philips (NE)	Philips Laboratories, Briarcliff, NY	Computers (AI, multiprocessors), integrated circuits, HDTV, electronic materials
Acer (Taiwan)	San Jose, CA	PCs, microcomputer terminals.
Computer Softw	are	
ASCII	Media Technology Research Institute San Francisco, CA	Software and media (1990)
Canon	Canon Information System Orange County, CA	Software (1990)
Epson	Advanced System Development, Epson Research Center, Santa Clara, CA	Advanced software development (1987)
Fujitsu Fujitsu Fujitsu	Fujitsu Systems, San Diego, CA Information Systems, San Jose, CA Open Systems Solutions, Emeryville, CA	Software for POS, hand-held computers, routing systems Engineering related software Unix software (1991)
Hitachi Hitachi	Hitachi Microsystems, San Jose, CA Hitachi Software Engineering San Francisco, CA	Software engineering, design and engineering support Software (1991)
Hitachi	Hitachi Digital Graphics, Sunnyvale, CA	CAD graphics, digitizers
Justsystem	San Jose, CA	Personal computer software (1995)
Konaimi	Buffalo Grove, IL	Software for video games (1995)

Company	Location of Facility	R&D Activities
Matsushita	Information Technology Laboratory Princeton, NJ Ind. Equip. Research Lab, Wood Dale, IL	Computer graphics, document processing, software (1991) Software for POS (1987)
NEC NEC NEC	NEC Research Institute, Princeton, NJ NEC Open Systems Lab, Princeton, NJ San Jose, CA	AI, parallel computing, machine learning (1990) Software development (1991) Networking management software
Omron	Information Technology Center, San Jose, CA	Personal computer software (1995)
Ricoh	Ricoh Software Research, Santa Clara, CA	Software (1988)
Seiko Instruments	San Jose, CA	Computer graphics
Sharp	Camas, WA	Multimedia R&D (1995)
Sony Sony	Sony Microsystems, San Jose, CA Advanced Computer Architecture Lab, Monterey, CA	Unix system software (1990) New OS system for using MO as primary storage (1992)
Sony	Semiconductor & Systems Lab, San Jose, CA	Future CAD investigating technologies
Sumitomo	Sumitomo Electric, Santa Clara, CA	Software development (1991)
Toppan Printing	Los Angeles, CA	Software, image processing (1995)
Zuken Zuken	Santa Clara, CA San Jose, CA	Computer aided design (1991) Computer aided design (1993)
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Northern Telecom (CAN)	BNR, Research Triangle Park, NC	PBX, central office switching software
Schlumberger (FR) Schlumberger (FR) Schlumberger (FR)	Austin Systems Center, Austin, TX CAD-CAM, Ann Arbor, MI ATE Division, San Jose, CA	Software and systems engineering Computer aided design and software Microelectronics, computer science and systems
Siemens (GER) Siemens (GER) Siemens (GER)	Siemens Corporate Research, Princeton, NJ Hell Graphics Systems, Port Washington, NY Siemens Stromberg-Carlson, Boca Raton, FL	CAD, AI, speech recognition Graphics Software packages for PBX, central office switching
Software AG (GER)	Reston, VA	Data base management systems, software
Philips (NE)	Laboratory Division, Briarcliff, NY	Artificial intelligence
Samsung (KO)	Samsung Software, Andover, MA	Customized software development
GEC-Marconi (UK)	W.W. Gaertner Research, Norwalk, CT	Real time graphics, systems design
Logical PLC (UK)	Logica, Waltham, MA	Software for banking, insurance, telecomm.
Racal (UK) Racal (UK) Racal (UK)	Racal-Guardata, Herndon, VA Racal InterLan, Boxborough, MA Racal-Redac, Mahwah, NJ	Computer security, encryption High speed ethernet, wireless Electronic design automation, system simulation
Severn Trent (UK)	Stoner Associates, Houston, TX	Software, pipeline applications

Company	Location of Facility	R&D Activities
Semiconductors		
Epson	ESMOS R&D Center, San Jose, CA	Semiconductors
Fujitsu Fujitsu	Fujitsu Microelectronics, San Jose, CA Fujitsu Microelectronics, Santa Clara, CA	Memories, logic and analog, ASIC, SPARC Microwave (MIC) and lightwave integrated circuits (MMIC)
Hitachi Hitachi	Brisbane, CA Farmington Hills, MI	Semiconductors (1989) Semiconductors for autos (1989)
Kawasaki Steel	Silicon Valley, CA	Semiconductors (1993)
Kobe Steel	Electronic Materials Center, Research Triangle Park, NC	GAAS and diamond thin-film materials for semiconductors (1989)
Matsushita	San Jose, CA	Semiconductors and software (1991)
Mitsubishi	Durham, NC	Semiconductors (1984)
NEC NEC	NEC Electronics, Natick, MA Systems Application Engineering Mountain View, CA	Semiconductors (ASICs) (1987) VLSI, chip sets for multimedia (1986)
Oki Electric	Oki Semiconductor, Sunnyvale, CA	Semiconductors (1989)
Ricoh	Ricoh Calif. Res. Center, Menlo Park, CA	ASICs, CMOS (1989)
Rohm	Rohm Research Corp., San Jose, CA	Semiconductors (1990)
Sharp	Camas, WA	Semiconductors (1988)
Sony	Microelectronics Design Center, San Jose, CA	Next generation SRAM, ASICS, flash EPROM
TDK	Silicon Systems, Tustin, CA	Custom monolithic ICs using metal oxide silicon
Toko	Signal Processing Technologies Colorado Springs, CO	Semiconductor design center (1992)
Toshiba	Toshiba Elec. Components, Sunnyvale, CA	Semiconductors (1984)
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AEG (GER)	Siliconix, Santa Clara, CA	Semiconductor manufacturing
Siemens (GER) Siemens (GER)	Integrated Circuits Division, Cupertino, CA Siemens Components, Iselin, NJ	High speed, sub-micron gallium arsenide and silicon components Power MOS-FET wafers; optical sensors, IC's for industrial use (MPUs, microcontrollers), memories
Goldstar (KO) Goldstar (KO) Goldstar (KO)	Goldstar Electronics, San Jose, CA United Micro Tech, Wayne, NJ GSEA, San Diego, CA	Semiconductors and DRAMs, multimedia (1983) Semiconductors (1984) Semiconductor technology surveys

Company	Location of Facility	R&D Activities
Hyundai	NCR-Microelectronics Products	ASIC devices, communications ICs, VLSI fabrication
Electronics (KO)	Fort Collins, CO	(1994)
	NCR-Microelectronics	SCSI controllers, CRT & graphics controllers (1994)
	Colorado Springs, CO	Ÿ -
Hyundai	SEMR Research Institute, San Jose, CA	Semiconductor research
Samsung (KO)	Samsung Semiconductor, San Jose, CA	Semiconductor (256K DRAM) design, multimedia (1983)
Samsung (KO)	Harris Semiconductor, Somerville, NJ	Semiconductors, microprocessors (1995)
Samsung (KO)	Harris Semiconductor Products	Integrated circuits, CMOS, PROMs, (1995)
	Melbourne, FL	
Young-Chang Akki (KO)	Young-Chang Boston Research Institute, MA	Synthetic sound, multimedia chips (1990)
Philips (NE)	Philips Laboratories, Briarcliff, NY	Integrated circuits
Philips (NE)	Philips Components, Slatersville, RI	Discrete semiconductors
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#### **Telecommunications**

Applied Telesis	Seattle, WA	Data communications equipment (1989)
Fujitsu Fujitsu Fujitsu	Fujitsu Network Systems, Raleigh, NC Business Comm. Systems, Anaheim, CA Telecommunications Research Center Richardson, TX	Central office switching equipment (1987) PBX equipment Telecommunications equipment
Fujitsu	Fujitsu Imaging Systems, Danbury, CT	Fax machines
Hitachi	Hitachi Telecom, Norcroff, GA	PBX, faxes (1987)
Matsushita Matsushita Matsushita	Applied Research Lab., Burlington, NJ Communications Systems Lab, Secaucus, NJ Research Triangle Park, NC	Video broadcasting (1981) Digital cable TV systems Satellite communications (1991)
NEC	Advanced Switching Lab, Irving, TX	Central office switches (1989)
Oki Electric	Oki Telecomm, Suwanee, GA	Telecommunications (1989)
Ricoh	San Jose, CA	Facsimile equipment (1979)
Sony	Telecommunications Research Lab, Montvale, NJ	Digital cellular technology & PCS
Toshiba	Toshiba Am. Info. Sytems, Irvine, CA	PBX, cellular systems, fax (1985)
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Northern Telecom (CAN)	BNR, Research Triangle Park, NC	Telecommunications network products; PBX systems, integrated data and voice products
Northern Telecom Northern Telecom	BNR, Mountain View, CA Richardson, TX	Telecommunications network products; PBX systems, integrated data and voice products
Alcatel (FR) Alcatel (FR)	Network Systems, Richardson, TX Network Systems, Raleigh, NC	Lightwave transmission equipment Digital loop carriers

Company	Location of Facility	R&D Activities
Siemens (GER) Siemens (GER)	Siemens Stromberg-Carlson, Boca Raton, FL Databit, Hauppauge, NY	Central office switching equipment Packet switched data network equipment and software. High-speed fiber optic links
Siemens (GER) Siemens (GER)	Rolm, Santa Clara, CA Rolm, Boca Raton, FL	PBX, voice mail, digital phones. Private telecommunications network
Goldstar (KO)	Goldstar Phoenix Lab, Phoenix, AZ	Advanced wireless telecom. equipment (1990)
Ericsson (SWE) Ericsson (SWE)	Richardson, TX Ericsson GE Mobile Comm., Research Triangle Park, NC	Central office switching equipment Digital cellular communications
ASCON/MIT (SWISS)	Ascon Timeplex, Woodcliff Lake, NJ	Data communications, multiplexing
Cray (UK)	Annapolis Junction, MD	Data communications
Racal (UK)	Racal-Datacom, Sunrise, FL	Electronic data communications
Optoelectronics		
Fujitsu	Microwave & Optoelectronics Division Santa Clara, CA	Microwave & lightwave semiconductors
Hoya Corp. Hoya Corp. Hoya Corp. Hoya Corp.	San Jose, CA Hoya Electronics, San Jose, CA Hoya Optics, Fremont, CA Continuum, Santa Clara, CA	Optoelectronics (1989) Optoelectronics (1986) Optical and laser glass (1973) Pulse laser beams (1991)
NTT	Photonic Integration Research Columbus, OH	Optoelectronics (1987)
Olympus	Torrance, CA	Optical and electronic products
Sumitomo	Research Triangle Park, NC	Fiber optics
Sumitomo Heavy Industries	Lumonics, Livonia, MI Laserdyne, Eden Prairie, MN Vista Mercado, CA	Lasers for materials processing Motion & delivery systems for lasers Laser systems for prod. identification
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Siemens (GER) Siemens (GER) Siemens (GER)	Optoelectronics Division, Cupertino, CA Siecor, Hickory, NC Crystal Technology, Palo Alto, CA	Optocouplers, infrared emitters Fiber optic cable Lithium niobate optical crystals
ELOP (Israel)	Optronic Devices, Hauppauge, NY	Laser systems, night vision systems
Avimo (Singapore)	Wheeling, IL	Night vision optics
Pharos AB (SWE)	Spectro Physics Lasers, Mountain View, CA	Lasers: gas, helium ion, ring dye, ion
Taiwan Lite-on	Lite-on Corp., Milpitas, CA	Optoelectronics for communications

Company	Location of Facility	R&D Activities	
Fairey (UK)	Lasermike, Dayton, OH	Electro-optical and laser gauges	
Morgan Crucible (UK)	Laser Diode, New Brunswick, NJ	Semiconductor lasers, laser systems	
Television			
Hitachi	Hitachi America, Princeton, NJ	HDTV (1991)	
Matsushita	Advanced TV-Video Lab, Burlington, NJ	HDTV (1990)	
Mitsubishi Electric	Consumer Electronics Engineering Center Orange County, CA	Audio-visual equipment, TV (1995)	
Sony	Advanced Video Technology Center (AVIC) San Jose, CA	Video post-production systems (1989)	
Sony	Television of America Engineering, San Diego, CA	Elec. parts engineering, local mechanical engineering power and electrical design capabilities	
Sony	Advanced Television Research Lab. Montvale, NJ	Digital image compression for HDTV	
Sony	Design Center, New Stanton, PA	TV design center (1992)	
Toshiba	Toshiba Am. Cons. Electronics, Wayne, NJ	HDTV receivers (1990)	
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Thomson (FR)	Indianapolis, IN	TV receivers; integrated circuit design; CAD/CAM, VCR & Camcorder; Electronic materials	
Thomson (FR)	Comark Communications, Southwick, MA	Broadcasting equipment, HDTV	
	North American Lab, Chicago, IL Zenith Electronics, Glenview, IL	HDTV (1991) Color TV, HDTV, picture tubes	
Samsung (KO)	Advanced Media Lab, Lawrence, NJ	HDTV (1988)	
Philips (NE) Philips (NE)	Philips Laboratories, Briarcliff, NY Consumer Electronics, Knoxville, TN	HDTV Design and development of household video receivers	
Pesa (Spain)	Manchester, NH	Broadcasting equipment and antennas	
Medical Electronics			
Toshiba	Toshiba Am Medical (MRI), San Francisco, CA	CAT Scanners, medical electronic equip. (1989)	
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Bayer (GER) Bayer (GER) Bayer (GER)	Miles, Orangeburg, NY Miles, Tarrytown, NY Miles, Kankakee, IL	Medical diagnostic imaging and scanning Automated diagnostic instruments Isolation of blood proteins	
Siemens (GER) Siemens (GER)	Siemens Medical Laboratories, Concord, CA Siemens Ultrasound, San Ramon, CA	Medical electronics (1989) Magnetic resonance imaging, scanners (1989)	

**R&D** Activities

Location of Facility

Company

Siemens (GER) Siemens (GER)	Siemens Medical Systems, Iselin, NJ Siemens Gammasonics, Hoffman Estates, IL	Medical equipment development Nuclear medical imaging, x-ray imaging
Philips (NE)	Philips Ultrasound, Santa Ana, CA	Diagnostic ultrasound
Gambro (SWE)	Cobe Laboratories, Lakewood, CO	Medical equipment
Ciba-Geigy (SW)	CIBA Corning, Oberlin, OH	Spectral scanning, chromotography
Nestle (SW) Nestle (SW)	Alcon Laboratories, Fort Worth, TX Alcon Surgical, Irvine, CA	Ophthmalogy Surgical instruments
Sulzer Bros. (SW)	Intermedics, Angleton, TX	Implanting medical prods., pacemakers
Other Electronic	s	
Advantest Advantest	American R&D Center, Buffalo Grove, IL Santa Clara, CA	Semicondutor testers, electronic instruments Semiconductor tester hardware and software (1994)
Asahi Overseas	Phone-mate, Torrance, CA	Automatic telephone answering machines
Fuji Xerox	Palo Alto, CA	Communications networks for workstations (1992)
Hoya	Probe Technology, Santa Clara, CA	Probe cards
Iwasaki Electric	Energy Sciences, Wilmington, MA	Electron processing, electron beams
Kyocera Kyocera	AVX Corp., Myrtle Beach, SC San Diego, CA	Electronic capacitors, ceramics, thin films Ceramics, semiconductor packages
Matsushita Matsushita Matsushita	Speech Technology Lab, Santa Barbara, CA Avionics Development Corp., Irvine, CA KMERL-Panasonic Research Triangle Park, NC	Speech recognition, information processing (1981) In-flight audio, video systems for passengers (1990) Satellite communications (1991)
Mitsubishi Kasei	Verbatim, Charlotte, NC	Floppy disks, magnetic tapes for memory storage
Mitsubishi Materials	Siltec Corp., Menlo Park, CA Siltec Silicon, Salem, OR	Semiconductor wafers Silicon materials tech. and manufacturing
Murata	State College, PA	Electronicsferroelectrics, dielectic measurement
Nikko Kyoda	Gould, Eastlake, OH	Electroylic foil and electronic components
Nikon	Nikon Precision, Belmont, CA	Optical wafer, flat panel display steppers (1990)
Nippon Columbia	Georgia Institute of Tech., Atlanta, GA	Multimedia R&D (1992)
Oyo Oyo	Geophysical Survey Systems, N. Salem, NH Klein Associates, Salem, NH	Fast pulse radar for geological strata profiling High resolution search & survey side scan sonar
Sharp	Hycom, Inc., Irvine, CA	Flat panel displays (1989)
SOC Corp.	San-O-Industrial, Holbrook, NY	Fuses for the telecommunications industry

Company	Location of Facility	R&D Activities
Sony	Factory Automation Division Orangeburg, NY	Image processing, intelligent CAD/CAM/CAE, precision control devices, thin film and vacuum technology.
Sony	Intelligent Systems Research Lab San Jose, CA	Auto focusing systems via fuzzy logic
Sony Sony	Sony Transcom, Irvine, CA Recording Media Lab, Boulder, CO	In-flight audio, video systems. Local technical expertise for recording media, customer support, technology infusion in Japan (1990)
Sony	Magnetic Products of America E&D Dothan, AL	Strategic materials, surface treatment agents for ME tape.
Sony	AP6 Sony Professional Products Company Boca Raton, FL	Professional audio console and tape equipment
Sony	Materials Research Corp., Orangeburg, NY	Semiconductors materials and equipment
TDK	TDK Components Engineering Lab Torrance, CA	Applied consumer/industrial electronics research
Ulvac	Fremont, CA	Semiconductor equipment applications lab (1990)
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Canadian Marconi	Cincinnati Electronics, Cincinnati, OH	Military electronic systems
Group Schneider (FR)	EPE Technologies, Costa Mesa, CA	Computer power protection, electrical distribution
Schlumberger (FR)	EMR Photoelectric, Princeton, NJ	Photomultiplier tubes, gamma ray detectors
BASF (GER)	Bedford, MA	Recording media
Siemens (GER)	Solar Industries, Camarillo, CA	Photovoltaic devices and systems
Olivetti (IT)	Blacksburg, VA	Teller terminals, PCs, bank ATMs
TAE IL Media (KO)	National Micronetics, Kingston, NY	Solid state ferrite technology, recording heads
Contraves (SW)	Pittsburgh, PA	Range tracking, inertial guidance systems
BTR (UK)	Bohemia, NY	Aerospace avionics
Ferranti (UK) Ferranti (UK)	Chicago, IL Lancaster, PA	Electron beam, lasers High frequency communications
GE Ltd. (UK) GE Ltd. (UK)	A.B. Dick, Chicago, IL Itech Graphics, Waltham, MA	Copiers, lithographic offset, micrographics Photocopying, microfilm equipment
GEC PLC (UK)	Lear Astronics, Santa Monica, CA	Automatic flight controls, avionics
Lucas Ind. (UK)	Lucas Aerospace, Hopkinton, MA	Microwave components
Racal (UK) Racal (UK)	Racal Communications, Rockville, MD Racal-Redac, Mahwah, NJ	Military radio communications Electronics design automation
Smiths Inds. (UK)	Grand Rapids, MI	Avionics, missle guidance, military electronics

Company	Location of Facility	R&D Activities
<b>Drugs and Biote</b>	chnology	
Ajinomoto	Raleigh, NC	Biotechnology
Chugai Pharmaceutical	Gen-Probe, San Diego, CA	Clinical diagnostics
Eisai Eisai Eisai	Andover, MA Teaneck, NJ Research Triangle Park, NC	Clinical drug testing (1989) Drugs (1988) Drugs (1995)
Fujisawa Fujisawa Fujisawa	Lyphomed Division, Melrose Park, IL Milwaukee, WI Deerfield, IL	Drugs, diagnostic aids Biotechnology, PMP Fermentation Products Drugs
Green Cross	Alpha Therapeutic, Los Angeles, CA	Biotechnology
Hitachi Chemical	University of California, Irvine, CA	Biotechnology (1990)
Ishihara Sangyo Kaisha	ISK Biotech, Mentor, OH Ricerca, Painesville, OH	Agricultural biotechnology Agricultural biotechnology
C. Itoh	Integrated Separation Systems, Natick, MA	Biotechnology supplies
Kirin Brewery	La Jolla Institute of Allergies and Immunology, La Jolla, CA	Biotechnology (1989)
Kyowa Hakko Kogyo	Nutri Quest, St. Louis, MO BioKyowa, Cape Girardeau, MO	Biotechnology (1990) Biotechnology
Mitsubishi Kasei	Seradyn, Indianapolis, IN	Biotechnology
Nitto Boseki Nitto Boseki	International Immunology, Murrieta, CA Midland Bioproducts, Boone, IA	Biotechnology Biotechnology
Olympus Optical	Stanbio Laboratory, San Antonio, TX	Clinical test procedures
Otsuka Pharmaceutical	Maryland Research Institute, Rockville, MD Biomembrane Institute, Seattle, WA	Biotechnology (1986) Biotechnology (1987)
Shiseido Shiseido	Cutaneous Biology Research Center Shiseido America Technocenter, Darien, CT	Biotechnology (1989) Biotechnology (1989)
Tanabe Seiyaku	Tanabe Research Labs USA, San Diego, CA	Biotechnology, immune systems, allergies (1990)
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Belgium		
Solvay & CIE Solvay & CIE	Solvay Animal Health, Saint Paul, MN Marietta, GA	Animal biotechnology, vaccines, chemotherapy Pharmaceutical science

Company	Location of Facility	R&D Activities
Denmark		
Dake	Dako, Carpinteria, CA	Biotechnology
Novo Nordisk Novo Nordisk	Entotech, Davis, CA Zymo Genetics, Seattle, WA	Biotechnology (1990) Biotechnology: diabetes, thrombosis, bleeding
Finland		
Cultor & E. Kodak	Genecor Int., South San Francisco, CA	Genetic and protein engineering
France		
Lipha	Milwaukee, WI	LiphaTech, biotechnology
Rhone Merieux Rhone Merieux	Athens, GA Gainesville, GA	Rhone Merieux, biotechnology Selected Laboratories
Rhone-Poulenc Rhone-Poulenc Rhone-Poulenc Rhone-Poulenc	CelPrill Industries, Manteca, CA Research Triangle Park, NC Fort Washington, PA Fort Washington, PA	Biotechnology Biotechnology Rhone-Poulenc Rorer Central Research Rhone-Poulenc Rorer Pharmaceutical
Sanofi Diagnostic	Redmond, WA Overland Park, KS	Genetic Systems Sanofi Animal Health
Sanofi Diagnos. Sanofi Diagnos.	Waukesha, WI Chaska, MN	Sanofi Bio Ingredients Sanofi Diagnostics
Germany		
Bayer Bayer Bayer Bayer Bayer	Miles, West Haven, CT Mishawaka, IN Miles/Haarman & Reimer, Elkhart, IN Miles, Shawnee Mission, KS Miles, Spokane, WA	Clinical drug trials, biologicals (1992) Miles Inc., Diagnostics Division Enzymes and biotechnology, drugs Animal health medicines Allergy products, immunology
BASF BASF BASF BASF	Cambridge, MA Research Triangle Park, NC Philadelphia, PA Parsippany, NJ	BASF Bioresearch Corp. (1989) Agricultural products, pesticides BACHEM Bioscience Drugs
Biotest	Danville, NJ	Biotest Diagnostics
Boehringer Ingelheim	St. Joseph, MO Indianapolis, IN	Boehringer Ingelheim Animal Health Biochemical Division
E Merck	EM Science, Gibbstown, NJ	Blood testing kits
Hoechst Hoechst Hoechst	Hoechst-Roussel Pharm., Somerville, NJ Animal Health Products, Somerville, NJ Marion Merrell Dow, Kansas City, MO	Endocrinology, antibiotics, cardiovascular Animal health products Toxicology, pharmacology, microbiological, clinical

Company	Location of Facility	R&D Activities
Schering Schering	Berlex Laboratories, Richmond, CA Berlex Biosciences, Richmond, CA	Protein-based human therapeutics Drugs for cancer, viral diseases
Israel		
Teva Pharmaceut.	Lemmon Co., Sellersville, PA	Drugs
Italy		
FIAT	Incstar Corp., Stillwater, MN	Biotechnology
Montedison	Columbus, OH	Adria Laboratories
Korea		
Lucky	Lucky Biotech, Emeryville, CA	Genetic engineering, biotechnology
Netherlands		
Affymax Technologies	Palo Alto, CA	Affymax Research Institute (1989)
Akzo Akzo Akzo	Organon Tecknik, Durham, NC Organon Inc., West Orange, NJ Intervet, Millsboro, DE	Molecular antibodies Drugs Animal vaccines
Gist-Brocades	Charlotte, NC	International Bio-Synthetics
Sweden		
Fermenta AB Fermenta AB	Kansas City, MO Fort Collins, CO	Feed additives, parasiticides Drugs for animal health
Pharmacia	Upjohn Laboratories, Kalamazoo, MI	Immunology, virology, biotechnology, drugs.
Procordia Procordia Procordia	Pharmacia Biochemicals, Milwaukee, WI Kabi, Clayton, NC Pharmacia Biotech, Piscataway, NJ	Biotechnology Biotechnology Biotechnology
Switzerland		
Ares-Serono	Serono Labs, Norwell, MA	Mammalian cell culture biotechnology
Ciba-Geigy Ciba-Geigy Ciba-Geigy Ciba-Geigy Ciba-Geigy	Medfield, MA Research Triangle Park, NC Greensboro, NC Summit, NJ McIntosh, AL	Ciba-Corning Diagnostic Agricultural Biotechnology Research (1984) Agricultural Pharmaceuticals division Plant development laboratory
Hoffman-LaRoche Hoffman-LaRoche Hoffman-LaRoche Hoffman-LaRoche	Nutley, NJ Burlington, NC Raritan, NJ Bio-Medical Lab, Norwich, CT	Roche Institute for Molecular Biology Biomedical laboratory Roche Biomedical Labs Multiphasic drug testing, HPLC

Company	Location of Facility	R&D Activities
Hoffman-LaRoche	Compuchem Labs	Forensic drugs of abuse testing
Hoffman-LaRoche	Research Triangle Park, NC Genentech, South San Francisco, CA	Biotechnology drugs
Sandoz Sandoz Sandoz Sandoz	Agro Research, Palo Alto, CA Sandoz Pharmaceutical, East Hanover, NJ Res. Institute-Dorsey Labs, Lincoln, NE Rogers NK Seed, Boise, ID Hilleshog Mono-hy, Nyssa, OR	Plant biotechnology, control of insects (1972) Prescription drugs, over the counter drugs Drugs Genetics and plant breeding Seed production of sugar beets
United Kingdom		
Amersham Intn'tl	Amersham, Arlington Heights, IL	Biotechnology
British Petroleum	Cleveland, OH	BP America
Burroughs Wellcome	Research Triangle Park, NC	Drugs, biotechnology
Glaxo Glaxo	Research Triangle Park, NC Sterling Drug Research, Rensselaer, NY	Drugs, biotechnology Medicinals, pharmaceuticals (1994)
Grand Metropolitan	Pilsbury Agricultural Res., Le Sueur, MN	Plant biotechnology
Life Sciences	Savant Instruments, Farmingdale, NY	Biotechnology, biomedical R&D
Medeva	Armstrong Pharmaceuticals, Norwood, MA	Drugs
Proton Intn'l	Lenexa, KS	JRH Biosciences
SmithKline Beecham SmithKline Beecham SmithKline Beecham SmithKline Beecham SmithKline Beecham SmithKline Beecham	Animal Health, Lincoln, NE Philadelphia, PA Animal Health, West Chester, PA Clinical Labs, Van Nuys, CA Consumer Brands, Parsippany, NJ Pharmaceuticals R&D, King of Prussia, PA	Biologics, drugs for animals, biotechnology SmithKline Beecham Animal nutrition disease, biotechnology Clinical testing of drugs Proprietary medicines, oral hygiene, Cardiovascular, gastrointestinal, etc. drugs
Smith & Nephew	Solopak Pharmaceuticals, Elk Grove Village, IL	Medical and pharmaceutical fields
Twyford Intn'l	Santa Paula, CA	Twyford Plant Laboratories
Unilever	Quest Bioproducts, Sarasota, FL	Biotechnology
Wellcome Foundation	Burroughs Wellcome Research Triangle Park, NC	Biotechnology, drugs
Zeneca Zeneca Zeneca Zeneca	Germantown, MD ICI Seeds, Des Moines, IA ICI Seeds, Kentland, IN Zeneca Pharmaceuticals, Wilmington, DE	Cellmark Diagnostics Hybrid seeds, biotechnology Hybrid seeds, biotechnology Biomedical research, drugs, biotechnology

Company	Location of Facility	R&D Activities
Metals		
Kawasaki Steel	Armco (50%), Middletown, OH	Carbon and alloy steels, stainless steel
Kobe Steel	Midrex Direct Reduction, Charlotte, NC	Steel-making using iron ore directly
NGK Insulators	Temple, PA	Beryllium metal and alloys
Nisshin Steel	Wheeling-Pittsburgh Steel, Wheeling, WV	Basic and applied metallurgy
NKK	National Steel, Pittsburgh, PA	Coated and uncoated steel products
	***	
Pacific Dunlop (Australia)	GNB, Saint Paul, MN	Secondary production of lead, lead oxide
Alcan (CA)	Cambridge Tech. Center, Cambridge, MA	Metals, alloys, ceramics.
Framatone (FR)	Burndy Corp. Norwalk, CT	Mechanical properties of metals
Pechiney (FR) Pechiney (FR)	Howmet Corp., Greenwich, CT Technical Center, Whitehall, MI	Metallurgy Superalloy melting and casting
Uqine Acg (FR)	J&L Specialty Prods., Pittsburgh, PA	Stainless steel products
Hertel (GER)	Kenilworth, NJ	Cemented tungsten and titanium carbide
Kanthal (SWE)	Bethel, CT	High temperature tubing, thermo-coupling alloys
Hartmetall (SW)	Metal Carbides, Youngstown, OH	Refractory metals of tungsten, titanium, cobalt, etc.
Cookson (UK)	Vesuvius, Pittsburgh, PA	Refractories for ferrous molten metals
Rio Tinto-Zinc (UK)	U.S. Borax: Tech. Dept., Santa Clara, CA	Mettallurgy, industrial minerals
RTZ PLC (UK)	Kennecott Corp., Salt Lake City, UT	Extractive metallurgy of titanium minerals
Automotive		
Alpine	Alpine Electronics R&D, Detroit, MI	Components for electric vehicles, navigation (1994)
Hitachi	Auburn Hills, MI	Automotive electronics, semiconductors
Honda Honda Honda	Honda R&D N. America, Marysville, OH Honda Engineering, Marysville, OH Honda R&D N. America, Torrance, CA	Produce and test prototype vehicles (1985) Design body and drivetrain prod. equip. (1988) Design and develop autos (1975)
Isuzu Isuzu	Isuzu Technical Center, Plymouth, MI Isuzu Technical Center, Cerritos, CA	Component engineering, engine testing (1989) Vehicle design studio (1987)
Mazda Mazda Mazda Mazda	Mazda R&D of North America, Irvine, CA Mazda R&D Center, Ann Arbor, MI Mazda R&D of North America, Flat Rock, MI Flat Rock, MI	Product design & engineering (1972) Emissions testing, engineering research (1988) Air conditioning, local parts sourcing (1988) Enhance localization of development (1992)

Company	Location of Facility	R&D Activities
Mazda	Batavia, OH	Survey production technology, technical support for Ford automatic transmission production
Mitsubishi Mitsubishi Mitsubishi	Design Studio, Cypress, CA Laboratory, Cypress, CA Southfield, MI	Vehicle design & styling (1973) Emissions & product testing (1984) Emissions & product testing (1982)
Nippondenso	Southfield, MI	Automotive electronics (1987)
Nippon Seiko	NSK Technical Center, Ann Arbor, MI	Develop bearings for vehicles (1992)
Nissan Nissan Nissan Nissan Nissan Nissan	Nissan R&D, Farmington Hills, MI Ann Arbor, MI Nissan Design Internat'l, San Diego, CA Los Angeles, CA Stanfield, AZ Japan Electronic Control Systems, MI Cambridge, MA	Automotive R&D (1991) Emissions testing, engine & powertrain res.(1983) Auto design institute (1979) Vehicle testing, market research (1988) Arizona Test Center (1986) Automotive electrical components (1992) Basic science: human sight, cognitive behavior, and physiology (1993)
Subaru Subaru	Subaru Reseach & Design, Garden Grove, CA Irvine, CA	Test vehicles, develop and test (1983) Design, styling (1990)
Toyoda Gosei	TG Technical Center, Madison Heights, MI	Design & develop plastic & rubber parts (1991)
Toyota Toyota Toyota Toyota Toyota Toyota	Phoenix, AZ Ann Arbor, MI Torrance, CA Calty Design Research, Newport Beach, CA San Francisco, CA Southfield, MI	Proving ground (1993) Evaluate prototype parts, emissions (1991) Test prototype vehicles (1977), expanded 1991 Design studio (1973), expanded 1991 Technical support for NUMMI Testing, emissions testing
Zexel	Farmington Hills, MI	Components and related parts
	***	
Renault (FR)	Mack Trucks, Winnsboro, SC	Heavy duty diesel trucks, transmissions, parts
Valeo (FR)	Valeo Engine Cooling, Jamestown, NY	Welding, brazing, and metal forming
BASF (GER)	Southfield, MI	Automotive coatings
BMW (GER)	California	Design studio (1991)
Robert Bosch (GER)	Farmington Hills, MI	Auto parts (1983)
Mercedes (GER)	Irvine, CA	Design studio (1990)
Siemens (GER) Siemens (GER) Siemens (GER) Siemens (GER)	Siemens Automotive, Newport News, VA Industrial Automation, Madison Heights, MI Central Technology, Auburn Hills, MI Rofin-Sinar, Plymouth, MI	Fuel injection systems, anti-lock brakes Control systems for auto manufacturing processes Automotive electronic systems, custom IC chips Laser application and development
Thyssen (GER) Thyssen (GER)	Budd Co., Farmington Hills, MI Budd Co., Auburn Hills, MI	Wheel and brake design Rail and highway vehicle design

Company	Location of Facility	R&D Activities
Volkswagen (GER)	Simi Valley, CA	Design center (1990)
Hyundai (KOR) Hyundai (KOR)	Detroit, MI Los Angeles, CA	1986 Design center (1989)
Kia (KOR)	Detroit, MI	1989
Volvo (SWE) Volvo (SWE)	Camarillo, CA Volvo GM Heavy Trucks, Greensboro, NC	Design studio (1986) Trucks, materials handling, emissions, noise, safety
United Parts (UK)	AP Parts, Toledo, OH	Auto parts

#### **Chemicals and Rubber**

BridgeStone	Akron, OH	Tires, rubber, plastics
Dainippon Dainippon Ink & Chemical	Polychrome Corp., Fort Lee, NJ Reichold Chemicals Research Triangle Park, NC	Resins, specialty chemicals, coatings, printing inks Polyester resins, coating, hardeners, epoxy,
Dainippon Ink	Swift Adhesives Division, Downers Grove, IL	Adhesive research
GC Corp.	Alsip, IL	Dental materials, polymers, resins, germicides
Ishihara Sangyo Kaisha	ISK Memphis Lab, Memphis, TN	Wood preservative chemicals
Kawasaki Steel	LNP Engineering Plastics, Exton, PA	Glass fiber and carbon fiber reinforced thermoplastics
Kobe Steel	Glastic Corp., Cleveland, OH	Fiberglass reinforced materials
Kyocera	Advanced Ceramic Technology Center Vancouver, WA	Silicon nitride ceramics for auto engine and gas turbine parts (1992)
Lintec	Madico Inc., Woburn, MA	Laminated, metallized plastic film (1992)
Mitsubishi Corp.	Aristech Chemical, Pittsburgh, PA	Chemical and polymer products
Mitsubishi Kasei	Seradyn/Photovolt Corp., Indianapolis, IN	Diagnostics, analytical instruments, latex particles
Mitsui Toatsu	Anderson Development Co., Adrian, MI	Urethane elastomers, catalysts
MMS	Magnox, Pulaski, VA	Magnetic iron oxides
Nippon Paint	Michigan	Paints (1994)
Nippon Sanso Nippon Sanso	Matheson Gas Prods, East Rutherford, NJ Isotec, Miamisburg, OH	Gas analysis, purification Separation of stable isotopes
Nissan Chemical	Purdue University, West Lafayette, IN	Agricultural chemicals
NOF Corp.	U.S. Paint Corp., St. Louis, MO	Industrial finishes, aerospace/marine coatings
Sumitomo Chemical	Valent USA, Walnut Creek, CA	Agricultural chemicals (1994)
Sumitomo Rubber	Dunlop Tire Co., Grand Island, NY	Tire products

Company	Location of Facility	R&D Activities
Three Bond	Westchester, OH	Adhesives and sealants (1992)
Tokuyama Soda	National Beryllia, Haskell, NJ	Ceramics and ceramic packages
Toray	Composites Horizons, Covina, CA	Advanced composite materials
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Denmark		
Denesco	Brown Engineering, Columbia, MD	Suspended particle process operations
Finland		
Outokumpu	OMG, Cleveland, OH	Paints, varnish, printing inks, plastics
France		
Cie de Saint- Gobain St. Gobain St. Gobain St. Gobain St. Gobain	Norton Co., Worcester, MA Norton, Troy, NY Norton, Wayne, NJ Louisville, KY Akron, OH Cohart Refractories, Louisville, KY	Abrasives, superabrasives Coated abrasives Thermoplastic products Advanced ceramics Ceramics, catalysts Advanced ceramics, refractories for ceramics
Elf Aquitane Elf Aquitane	Technical Center, King of Prussia, PA Buffalo, NY	Chemical products Organic peroxides, foaming agents
L'Air Liquide	Big Three Industries, Houston, TX	High temperature materials
Michelin	Michelin America R&D, Greenville, SC	Synthetic rubber
Pechiney	Carbone Lorraine, Parsippany, NJ	Carbons, graphites and resins, teflon
Rhone-Poulenc Rhone-Poulenc Rhone-Poulenc Rhone-Poulenc Rhone-Poulenc	Princeton, NJ Research Triangle Park, NC Louisville, KY Gastonia, NC Cranbury, NJ	Herbicides, fungicides, animal health prods. Agricultural chemicals, toxicology Water soluble polymers Polymeric systems for paper, textiles Specialty chemicals
Total	Cook Composites, Port Washington, WI	Synthetic resins for reinforced plastics
Germany		
Bayer AG Bayer AG Bayer AG Bayer AG	Miles Inc., Pittsburgh, PA Haarman & Reimer, Springfield, NJ H.C. Stark, Newton, MA Polysar Rubber, Akron, OH	Polyurethanes, thermoplastic, industrial chemicals Colorants, fragrances, flavors, food preservatives Tantalum and niobium Process chemistry, process engineering
BASF BASF BASF BASF BASF	Freeport, TX Enka, NC R&D Library, Wyandotte, MI Clifton, NJ Milford, OH	Industrial chemicals, plastics Wet-spun fibers Biochemistry for agricultural chemicals Polymer science, surface science Polymer science, chemical coatings

Company	Location of Facility	R&D Activities
BASF	Holland, MI	Publication inks, graphic arts
Continental	General Tire, Akron, OH	Tire development
Dieder-Werke	State College, PA	Refractories for steel, iron, glass
E Merck	Rona Inc., Hawthorne, NY	Pearlescent pigments
Henkel Henkel Henkel Henkel	Cognis, Santa Rosa, CA Emery Group, Cincinnati, OH Ambler, PA Parker & Amchem, Madison Heights, MI	Microbial technology, metal ion extraction Fatty acids, ozonization, polymerization Metal treating chemicals Metal treating chemicals
Hoechst Hoechst Hoechst Hoechst Hoechst Hoechst	Corporate Research, Coventry, RI Miller Technical Center, Summit, NJ Hoechst-Celanese Fibers, Charlotte, NC Somerville, NJ Technical Center, Corpus Christi, TX Portsmouth, VA Chatham, NJ	Dyes, organic pigments, agricultural chem. Basic research, chemicals Synthetic fibers, film Printing products, graphic arts products New chemical processes Sodium hydrosulfite, alkyl amines Dyes, pigments, specialty chemicals
Huls Huls	Piscataway, NJ Bristol, PA	Synthetic lubricants, biochemicals, coatings Industrial organic chemicals
Rutgerswerke	State College, PA	Process development for chemical industries
Thyssen	Plastic R&D Center, Troy, MI	Structural composites
Hong Kong		
Astec	Beckman Industries, Fullerton, CA	Electroceramics, thin film materials
Italy		
Montecatini	SP Systems, Los Angeles, CA	Composites
Montedison	Himont, Wilmington, DE	Polymerization, plastics, fibers
SKF	CR Industries, Elgin, IL	Oil seals and rubber technology
Netherlands		
Akzo Akzo	Research Laboratory, Dobbs Ferry, NY Akzo Coatings, Troy, MI	Chemicals, plastics Automotive paints, adhesives
DSM	Polymer Corp., Reading, PA	Polyamides, polyacetals, polyethelene
Naamaloze Vennootschap	Copolymer, Baton Rouge, LA	Solution and emulsion polymerization
Norway		
Borregaard	Ligno Tech, Rothschild, WI	Chemicals from lignin and raw cellulose
Dyno	Dyno Nobel, Salt Lake City, UT	Industrial explosives

Company	Location of Facility	R&D Activities
Switzerland		
Allusuisse-Lonza	Lonza, Annandale, NJ Lonza, Williamsport, PA	Hydantoin, amide, ester carbohydrate Fat and hydantoin chemicals, fatty acids
Ciba-Geigy Ciba-Geigy Ciba-Geigy	Polymers Division, Hawthorne, NY Anaheim, CA Lansing, MI	Resins, plastics, epoxy Advanced composites Adhesives, sealants
Forbo	Hazleton, PA	Surface coatings
Fuchs	Metal Lubricants, Harvey, IL	Industrial lubrication oils, rust inhibitors
Hoffman-LaRoche	Givaudan-Roure, Clifton, NJ	Fragrances, flavors, cosmetics
Sandoz	Mallard Creek Res. Center, Charlotte, NC	Specialty chemicals, surfactants, dyes
Sika Finanz	Lyndhurst, NJ	Epoxy resins, specialty cement, urethane polymer
United Kingdom		
BBA	RM Engineered Prods, North Charleston, SC	Exotic coatings, elastomeric composites
BP BP	BP Research, Cleveland, OH BP Chemicals, Gardena, CA	Environmental science, engineering Graphite fibers, epoxy, composites
BTP	Windham, NH	Specialty monomers and polymers
Courtaulds	Burbank, CA	Caulking, sealing, aerospace vehicles
Fisons	J&W Scientific, Folsom, CA	Organic and analytical chemistry
Hanson Trust PLC	SCM-Glidco Organics, Jacksonville, FL	Terpene chemistry, fragrances, flavors
ICI Paints	Glidden Co., Strongsville, OH	Paints, coatings, polymers
Imperial Chem. Imperial Chem. Imperial Chem.	Chemical Engineering Lab, New Castle, DE Tamaqua Tech. Center, Tamaqua, PA Hopewell, VA	Specialty organic chemicals High explosives, blasting initiators Polyester films and polymers
Lutton	Alpha Chemical, Pineville, NC	Polymers, plastics
Pilkington	Pilkington Aerospace, Garden Grove, CA	Thermoplastics, optical thin films
Smiths Inds.	Flexible Technologies, Abbeville, SC	Flexible hose—polymer-related materials
Wassall	DAP Inc., Dayton, OH	Caulks, sealants, putty, adhesives
Zeneca Zeneca Zeneca Zeneca	Wilmington, MA Richmond Research Center, Richmond, CA Zeneca Ag Products, Whitakers, NC Wilmington, DE	Polymers and resins emulsion Agricultural chemicals, biotechnology Agricultural chemicals Specialty chemicals

Company	Location of Facility	R&D Activities
Machinery		
Fanuc	Berkeley, CA	Power sensors for robotic systems (1994)
Honda	Swepsonville, NC	Lawn mowers (1993)
Hosokawa Hosokawa	Micron Powder Systems, Summit, NJ Hosokawa Micron, Augusta, GA	Particle size reduction, separation Industrial filter bags
Juki	Union Special Corp., Huntley, IL	Industrial sewing machines
Ube Industries	Technical Center, Detroit, MI	Plastics molding machinery (1992)
Yamazaki Mazak	Florence, KY	Special-purpose machine tools (1992)
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Lincolne Scott (Australia)	Honolulu, HI	Mechanical, electrical engineering
Andritz (Austria)	Muncy, PA	Paper and pulp making machinery
Moore (CAN)	Research Center, Grand Island, NY	Printing equipment, business forms handling
Rauma-Repola (FIN)	Neles-Jamesbury, Worcester, MA	Fluid controls, ball valves, butterfly valves
Tamroc (FIN)	Eimco Coal Machinery, Bluefield, WV	Underground mining equipment
Carnaudmetalbox (FR)	Anchor Hocking Packing, Lancaster, OH	Packaging, sealing machinery
LaFarge Coppee (FR)	Systech Corp., Xenia, OH	Liquid and solid waste resource recovery
St. Gobain (FR)	Norton Co., Salt Lake City, UT	Diamond drilling bits for oilfield, mining, etc.
Bayer (GER)	Agfa, Wilmington, MA	Computerized typographic, offset printing equipment
Degussa (GER)	Leybold Vacuum Prods., Export, PA	Vacuum pumping systems
Atlas Copco (SWE)	Rotoflow Corp., Gardena, CA	Large power recovery turbines for geothermal systems
Electrolux (SWE)	White Consolidated Industries, Mattoon, IL	Road equipment and asphalt pavers
Electrolux (SWE)	Dometic Corp., Lagrange, IN Richards-Wilcox, Aurora, IL	Forced air furnaces Industrial elec. doors, conveyors, ind. carousels
Incentive (SWE)	Hagglunds Denison, Marysville, OH	Oil hydraulic components
Seco Tools (SWE)	Carboloy, Detroit, MI	Sintering, bonding, carbides, tools
BTR (UK)	Stewart Warner, Indianapolis, IN	Pneumatic and hydraulic equipment
Dobson Park (UK)	IRD Mechanalysis, Columbus, OH	Control of vibration and noise
Geotech (UK)	Ford New Holland, New Holland, PA	Agricultural and light industrial machines
Pearson (UK)	Reed Tool, Houston, TX	Metals used in drilling operations

Company	Location of Facility	R&D Activities		
Instrumentation & Controls				
Terumo (JA)	Elkton, MD	Blood collection devices, cardiovascular, IV		
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CEGELEC (FR)	Linden, NJ	Chemical process analyzers		
Group Schneider (FR)	Crisp AutomationSquare D, Dublin, OH Industrial Control Prods, Raleigh, NC	Chemical process automation, instruments, control Electrical control devices and accessories		
St. Gobain (FR)	Bicron Corp., Newbury, OH	Contamination, scrap monitoring		
Schlumberger (FR) Schlumberger (FR)	Ind Electricity Div., Norcross, GA Measurement Div., West Union, SC	Central meter reading systems Liquid flow meters, flow computers		
Balcke-Durr (GER)	Zurn Balcke-Durr, Tampa, FL	Environmental controls		
Hartman and Braun (GER)	Applied Automation, Bartlesville, OK	Process control instruments		
Heraeus (GER)	Phoenix, AZ	Solar devices		
Philips (NE) Philips (NE) Philips (NE)	Electronic Instruments/EDAX, Mahwah, NJ Philips Technologies, Cheshire, CT Airpax Protector Group, Frederick, MD	X-ray instrumentation, spectrometry Timing devices, indicators Interruptors, disc thermostats		
Spectra Physics (SWE)	Dayton, OH Agema Infrared Systems, Secaucus, NJ	Laser-based alignment systems for construction Temperature measurement systems, infrared		
ABB (SW) ABB (SW) ABB (SW) ABB (SW)	Windsor, CT Columbus, OH Detroit, MI Research Triangle Park, NC	Combustion technology, nuclear reactor design Measurement systems, control systems Paint application technology Technology transfer		
Landis & Gyr (SW) Landis & Gyr (SW)	Lafayette, IN Buffalo Grove, IL	Instruments for measuring electricity Building control systems software		
BTR (UK) BTR (UK)	Stewart Warner, Pittsburgh, PA Stewart Warner, Springfield, IL	Measurement and flow controls Hour meters, pressure & vacuum switches		
Dobson Park (UK) Dobson Park (UK)	Revere Aerospace, Wallingford, CT Revere Transducers, Artesia, CA	Pressure, temperature, speed, proximity sensing Resistance strain gauges, force pressure calibration		
Fisons (UK)	Kevex Instruments, Valencia, CA	X-ray spectrometry and materials analysis		
IMI PLC (UK)	Norgren, Littleton, CO	Regulating, controlling compressed air		
J. Bibby (UK)	Melles Girot, Irvine, CA	Optical sciences, optical thin films		
Kratos (UK)	Kratos Analytical, Ramsey, NJ	Surface analysis, mass spectrometry		
LRC N.A. (UK)	Schmid Products, Sarasota, FL	Medical devices		
Lucas Ind. (UK)	Lucas AUL, Garden City, NY	Electronic instruments		

Company	Location of Facility	R&D Activities		
Lucas Ind. (UK)	Lucas Weinschel, Gaithersburg, MD	Instruments, measurement systems		
Pilkington (UK)	Pilkington Visioncare, Menlo Park, CA	Ophthamology and optometry		
Plersey (UK)	Sippican, Marion, MA	Oceanographic instruments		
Racal (UK)	Racal-Dana Instruments, Irvine, CA	Time and frequency analysis		
Siebe (UK) Siebe (UK) Siebe (UK) Siebe (UK)	Foxboro Co., Foxboro, MA Barber Colman, Loves Park, IL Ranco/Paragon Electric, Two Rivers, WI Robertshaw Controls, Long Beach, CA Siebe Environmental Controls, Richmond, VA	Process control, factory automation Temperature controls, power controls Timing devices, time controls, energy management Gas, electric, pneumatic and hydraulic controls Electronic products		
Smith and Nephew (UK)	Massillon, OH Memphis, TN	Latex medical products Orthopedic implants and instruments		
Stavely (UK)	Weigh-Tronix, Santa Rosa, CA	Electronic weight measurement systems		
Whatman (UK)	Clifton, NJ	Thin layer chromatography products		
Food Processing, Consumer Goods, Miscellaneous				
Nitto Denko Nitto Denko	Graphic Technology, Ind. Airport, KS Permacel, New Brunswick, NJ	Pressure sensitive bar-coded labels Pressure sensitive tapes, elec. insulation		
KAO	Cincinnati, OH	Cosmetics, toiletries, soap		
Settsu	Uarco, Barrington, IL	Business forms printing		
Shiseido	Zotos, Darien, CT	Hair science, hair coloring, shampoos, permanents		
Tokai	Scripto Tokai, Fontana, CA	Mechanical pencils, ball pens, china marking pencils		
Yamanouchi	Shaklee Corp., San Francisco, CA	Cosmetics, toiletries, nutritional supplements & foods		
Canada	***			
Seagram	White Plains, NY	Alcoholic beverages. Fermentation of maturation		
	writte Frams, 1V1	Aconone beverages. Fermentation of maturation		
Finland	Will Commence of the commence			
Amer Group	Wilson Sporting Goods, Chicago, IL	Golf, tennis, football, baseball, athletic goods		
France				
Schlumberger Schlumberger	Doll Research Center, Ridgefield, CT Dowell, Tulsa, OK	Oil field well prod. and logging, sonics Enhance oil well stimulation		
Germany				
Benckiser	Coty, Parsippany, NJ	Fragrances, cosmetics		
OSRAM	OSRAM-Sylvania, Danvers, MA	Lighting R&D		

Company	Location of Facility	R&D Activities
Rotring	Koh-I-Noor Rapidograph, Bloomsbury, NJ	Engineering supplies, art materials
SIGRI SIGRI	Great Lakes Carbon Corp., Niagara Falls, NY Great Lakes Research, Elizabethton, TN	Carbon and graphite electric furnace electrodes Petroleum coke, graphite electrodes and products
Thyssen	Budd Co., Auburn Hills, MI	Rail and highway vehicle design
Ireland		
Kerry Group	Kerry Ingredients, Beloit, WI	Flavoring and seasoning
Italy		
Ferruzzi Ferruzzi	Central Soya Feed Research, Decatur, IN Wayne, IN	Nutrition research on livestock and poultry Soy proteins, food research
Netherlands		
Royal Dutch Shell	Shell Oil, Bellaire Research Center	Exploration and production of oil and gas
Royal Dutch Shell	Houston, TX Shell Oil, Westhollow Research Center Houston, TX	Fuels and lubricants, refining processes, chemicals
Unilever Unilever Unilever Unilever	Lipton Co., Englewood Cliffs, NJ Unilever Research U.S., Edgewater, NJ Chesebrough-Pond, Greenwich, CT Van Den Bergh Foods, Lisle, IL	Tea, soup mixes, beverage mixes, salad dressing Household and personal consumer products Personal care products Edible fats, seasonings, dairy and baking prods.
Wolters Kluwer	Aspen Systems, Silver Spring, MD	Management consulting to government and industry
Netherlands Antil	les	
Fuel Tech	Stamford, CT	Combustion, energy transfer, emissions reduction
Sweden		
Karishamns (SWE)	Columbus, OH	Fats, oils, fatty derivatives
Switzerland		
Nestle Nestle Nestle	Glendale, CA Stouffer, Solon, OH Westreco, New Milford, CT	Dietary foods (dairy, meat), food processing Frozen prepared foods Coffee, tea, confections, dairy products
Sandoz Sandoz	Sandoz Nutrition, Minneapolis, MN Gerber Products, Fremont, MI	New food products, processes, snacks Food science, nutrition, biochemistry, microbiology
SGS	U.S. Testing Co., Hoboken, NJ	Biology, chemistry, quality control, materials
United Kingdom		
Bowater PLC	Rexham, Charlotte, NC	Coated, uncoated paper, paper board, packaging
British-American Tobacco	Brown & Williamson, Louisville, KY	Tobacco and tobacco technology

Company	Location of Facility	R&D Activities
British Petroleum	Purina Mills, St. Louis, MO	Commercial animal, fish, pet feeds; nutrition
Coats ViYella	Charlotte, NC	Sewing thread, crochet, zippers
Grand Metropolitan	Heublein, Hartford, CT Pillsbury Tech. Center, Minneapolis, MN	Spirits, wine and beverages Consumer and institutional food products
Hanson Trust	Iselin, NJ	Meat packing, fabric, vending, food service
Inchcape Inchcape Inchcape Inchcape	Better Fabric Testing, New York, NY Inchcape Testing, Cortland, NY Inchcape Testing, Norcross, GA Doty Labs, North Kansas City, MO	Textile testing Testing of engineering materials, parts Testing of engineering materials, parts Quality controlgrain storage, milling
PA Holdings	PA Consulting, Hightstown, NJ	R&D of products and processes.
Reckitt & Colman	Wayne, NJ	Odor control, cleaners, air fresheners, waxes
Staveley Inds. Staveley Inds.	Arnold Greene Testing Labs, Natick, MA Conam Inspection, Sharon Hill, PA	Metallurgy, chemical analysis, air/water pollution Testing: X-ray, gamma ray, ultrasonics, etc.
Tompkins	Smith & Wesson, Springfield, MA	Handguns
TI Group	Dowty Aerospace, Yakima, WA	Hydraulic controls for aerospace
United Biscuits	Keebler Co., Elmhurst, IL	Bakery and confectionary products
USM Texon	Wilmington, MA	Latex, resin saturated fiber materials for footwear
Venezuela		
Petroleos de Venezuela	Citgo Petroleum, Tulsa, OK	Fuel and lubricant products

#### **Data Sources**

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